

## The genus *Rhomphaea* (Araneae: Theridiidae) from Japan, with notes on the subfamily Argyrodinae

Hajime Yoshida

7-16, Kagota 2 Chome, Yamagata-shi, Yamagata, 990-2484 Japan  
E-mail: araneae@mb.infoweb.ne.jp

**Abstract** — Three theridiid genera, *Rhomphaea* L. Koch 1872, *Ariamnes* Thorell 1869 and *Spheropistha* Yaginuma 1957, are resurrected, and they are treated under a subfamily together with the genus *Argyrodes*. *Conopisthinae* Archer 1950 is newly synonymized with *Argyrodinae* Simon 1894. Keys to the genera of *Argyrodinae* and the species of *Rhomphaea* are given. In the genus *Rhomphaea* four species are recorded from Japan. Of these, two species, *R. hyrcana* (Logunov & Marusik 1990) and *R. labiata* (Zhu & Song 1991), are newly transferred from *Argyrodes*, and the former is recorded from Japan for the first time. A new species, *R. tanikawai*, is described from Iriomote Island, the Nansei Islands. Three species of *Spheropistha*, *S. miyashitai* (Tanikawa 1998) described from Japan, *S. nigroris* (Yoshida et al. 2000) and *S. orbita* (Zhu 1998) described from China, are newly transferred from *Argyrodes*. *Argyrodes gansuensis* Zhu 1998 described from China is newly synonymized with *A. fur* (Bösenberg & Strand 1906). One species name, *Argyrodes silvicola* S. Saito 1934, is treated as *nomen dubium*. A list of the Japanese species of the subfamily *Argyrodinae* is given.

**Key words** — *Rhomphaea*, Argyrodinae, Theridiidae, new species, new combination, new record, Japan.

Spiders of the genus *Argyrodes* Simon 1864 (Theridiidae) are well known for their kleptoparasitic behavior to the other web-building spiders. Some species of the genus were formerly described under different generic names such as *Rhomphaea* L. Koch 1872, *Ariamnes* Thorell 1869, or *Spheropistha* Yaginuma 1957. Although concepts of those genera still serve as “species groups” in the genus *Argyrodes* (Exline & Levi 1962; Zhu 1998), those genera have usually been treated as synonyms of *Argyrodes* (Levi & Levi 1962; Tanikawa 1998). However, in recent years many genera have newly established or revived in the family Theridiidae (Wunderlich 1987; Zhu 1998; Knoflach 1999; Platnick 2001; Yoshida 2001). Compared with other genera of Theridiidae, the distinction among *Argyrodes*-related groups seems to be rather clear. By this reason, in this paper I propose resurrection of the genera *Rhomphaea*, *Ariamnes*, and *Spheropistha*, providing a key and a table of diagnostic characters of these three genera plus *Argyrodes* s. str.

I recognized following two Japanese “*Argyrodes*” species should be treated under *Rhomphaea*: *A. saganus* (Dönitz & Strand 1906) and *A. labiatus* Zhu & Song 1991; the latter has just joined Japanese fauna (Ono & Shinkai 2001). Moreover, I found two other species

which should also be assigned to *Rhomphaea* and new to Japanese fauna in the *Argyrodes*-related specimens examined: *Argyrodes hyrcanus* Logunov & Marusik 1990 and undescribed species. I will also describe or redescribe these members of *Rhomphaea* here.

For the description, Prefectural names are capitalized in the list of “specimens examined”. Depositories of specimens excluding my private collection are given in abbreviations: NSMT-Ar, the Araneae Collection of the Department of Zoology, National Science Museum, Tokyo; CAT, the Private Collection of Akio Tanikawa, Kanagawa

### Subfamily Argyrodinae Simon 1894

*Argyrodeae* Simon 1894, p. 496. (established as a genus group).

*Argyrodinae*: Petrunkevitch 1928, p. 118.

*Conopisthinae* Archer 1950, p. 11. **New Synonymy**

Four genera, *Spheropistha* Yaginuma 1957, *Argyrodes* Simon 1864, *Rhomphaea* L. Koch 1872 and *Ariamnes* Thorell 1869, belong to Argyrodinae. This subfamily is characterized by a hooked paracymbium of male palpus, large colulus, and great morphological

variability of abdomen and male carapace. One more important character of argyrodine spiders is kleptoparasitic behavior shown to the other web-building spiders. The distinctions of these four genera are given under the key and the Table 1. The genus *Argyrodes* has various characteristics, so further divisions of it may be needed.

All the species of the *Rhomphaea* group and the *Ariamnes* group of the genus *Argyrodes* designed by Exline & Levi (1962) should be transferred to the genera *Rhomphaea* and *Ariamnes*, respectively. Transfers of two *Argyrodes* species to *Rhomphaea* are mentioned later. In addition to them, three other species of *Argyrodes* are newly transferred to *Spheropistha*: *S. miyashitai* (Tanikawa 1998) **new combination** = *A. miyashitai* Tanikawa 1998, p. 23, figs. 1–2, 6, 8, 10, 12, described from Japan; and *S. orbita* (Zhu 1998) **new combination** = *A. orbitus* Zhu, 1998, p. 221, fig. 145, and *S. nigroris* (Yoshida et al. 2000) **new combination** = *A. nigroris* Yoshida et al. 2000, p. 125, figs. 5–10, both described from China. These three species share a combination of following characters that characterizes *Spheropistha*: 1) globular abdomen in both males and females, 2) long embolus of male palpus, 3) tubular conductor of male palpus, 4) male carapace lacking an anterodorsal projection, 5) long and coiled duct of fe-

male internal genitalia. *S. miyashitai* (Tanikawa 1998) resembles *S. orbita* (Zhu 1998). Distinctive characteristics between them are uncertain.

I newly synonymize *Argyrodes gansuensis* Zhu 1998 described from China with *A. fur* Bösenberg & Strand 1906 described from Japan, because the figures of *A. gansuensis* (Zhu 1998, fig. 131) coincide with those of *A. fur* (Figs. 25–27). *A. fur* resembles *A. nipponicus* Kumada 1990 (Figs. 28–30), but is easily distinguishable from it by short projections of male carapace and short abdomen. In Japan, the two species belong to *A. trigonus* group designed by Exline & Levi (1962).

Judging from the original description (Saito 1934, p. 304, pl. 13, fig. 16, pl. 14, fig. 55), *Argyrodes silvicola* S. Saito 1934, described from Hokkaido, Japan, does not belong to the genus *Argyrodes* but the true genus of it is uncertain. Type specimen of the species was lost and any additional specimens have not been available for Japanese arachnologists since the original description. Therefore I treat this species name as *nomen dubium*.

#### Key to the genera of Argyrodinae

1. Embolus of male palpus and a duct of female internal genitalia long and coiled more than twice; con-

Table 1. Characteristics of four genera of the subfamily Argyrodinae

	<i>Spheropistha</i>	<i>Argyrodes</i>	<i>Rhomphaea</i>	<i>Ariamnes</i>
Male carapace	Eye region slightly projecting	Usually with a projection of various size and shape	With one projection, or if lacking, clypeus slanting and projecting	Eye region slightly projecting, clypeus not projecting
Abdomen	Globular or oval	Variable, usually triangular	Triangular and long, less than six times as long behind as anterior to spinnerets	Tubular and long, more than six times as long behind as anterior to spinnerets
Palpal embolus	Coiled, more than twice	Not so long, sometimes coiled	Not so long	Not so long
Palpal conductor	Tubular, as an embolus guide	Variable, not tubular	Membranous, not tubular	Membranous, not tubular
Patella & tibia I/ carapace length	0.9–1.3	0.8–2.9	3.0–3.9	1.2–1.4 ( <i>cylindrogaster</i> ) 2.6–3.7
Patella & tibia I/IV	1.3–1.7	1.3–1.8	1.5–2.1	0.6–0.7 ( <i>cylindrogaster</i> )
Web	Parasite	Parasite	Parasite	One thread
Feeding behavior	Steal from the host web	Steal from the host web	Steal from the host web, sometimes attack the host	Catch by itself ( <i>cylindrogaster</i> )
Distribution	Subtropical to temperate	Tropical to subtropical (temperate)	Tropical to temperate (subarctic)	Tropical to temperate

ductor of male palpus tubular; male carapace without large projection; abdomen almost globular ...  
..... *Spheropistha* Yaginuma 1957

— Embolus of male palpus and a duct of female internal genitalia not so long; conductor of male palpus not tubular; male carapace usually with large projection; abdomen usually extends over the spinnerets ..... 2

2. Abdomen tubular and very long; more than six times as long behind as anterior to spinnerets .....  
..... *Ariamnes* Thorell 1869

— Abdomen usually triangular; less than six times as long behind as anterior to spinnerets ..... 3

3. Abdomen triangular and long; male carapace with a projection on eye region, or if lacking, clypeus slanting and projecting anteriorly; epigynum with a ventrally membranous projection, a depression and openings situated in front of it .....  
..... *Rhomphaea* L. Koch 1872

— Abdomen variable and not so long; male carapace anterodorsally with a projection of various shapes, and clypeus not slanting; epigynum without membranous projection ..... *Argyrodes* Simon 1864

*Rhomphaea* L. Koch 1872

[Japanese name: Yarigumo zoku]

*Rhomphaea* L. Koch 1872, p. 289.

**Description.** Carapace usually with a projection of eye region in male; clypeus slanting and projecting anteriorly in both sexes. Female abdomen tapering to a single tip, usually four to six times as long behind as anterior to spinnerets. Epigynum with a ventrally membranous projection, a depression and openings situated in front of it. Conductor of male palpus membranous; tip of embolus thin and clockwise (left palpus) with large base. Legs thin and long: first patella and tibia 1.5 to 2.1 times the fourth, 3.0 to 3.9 times the carapace length.

**Type species.** *Rhomphaea cometes* L. Koch 1872.

#### Key to the Japanese species of *Rhomphaea*

1. female ..... 2
- male ..... 5
2. Abdomen two to three times as long behind as anterior to spinnerets (Figs. 20–21) .....  
..... *R. tanikawai* new species
- Abdomen more than four times as long behind as anterior to spinnerets ..... 3

3. Abdomen dorsally with blackish brown flecks; palpus and legs dorsally with distinct blackish brown flecks; eye region low (Fig. 6) .....  
..... *R. hyrcana* (Logunov & Marusik 1990)
- Blackish brown flecks of abdomen small; dorsal flecks of palpus and legs indistinct; eye region projecting ..... 4
4. Abdomen distally with a spine-like projection (Fig. 10); epigynum with a large membranous projection (Fig. 11) ..... *R. labiata* (Zhu & Song 1991)
- Abdomen distally without a spine-like projection (Fig. 1); epigynum with a small membranous projection (Fig. 3) .....  
..... *R. sagana* (Dönitz & Strand 1906)
5. Carapace anteriorly with a projection (Fig. 2) ...  
..... *R. sagana* (Dönitz & Strand 1906)
- Carapace without an anterior projection ..... 6
6. Abdomen twice as long behind as anterior to spinnerets (Fig. 16) ..... *R. tanikawai* new species
- Abdomen more than four times as long behind as anterior to spinnerets ..... 7
7. Projection of eye region large (Figs. 15, 18); conductor of male palpus without a distal swelling (Fig. 13); palpus without flecks (Fig. 15) .....  
..... *R. labiata* (Zhu & Song 1991)
- Projection of eye region small (Figs. 14, 17); conductor of male palpus with a distal swelling (Fig. 9); palpus with black flecks on femur, patella and tibia (Fig. 14) .....  
..... *R. hyrcana* (Logunov & Marusik 1990)

*Rhomphaea sagana* (Dönitz & Strand 1906)

[Japanese name: Yarigumo]

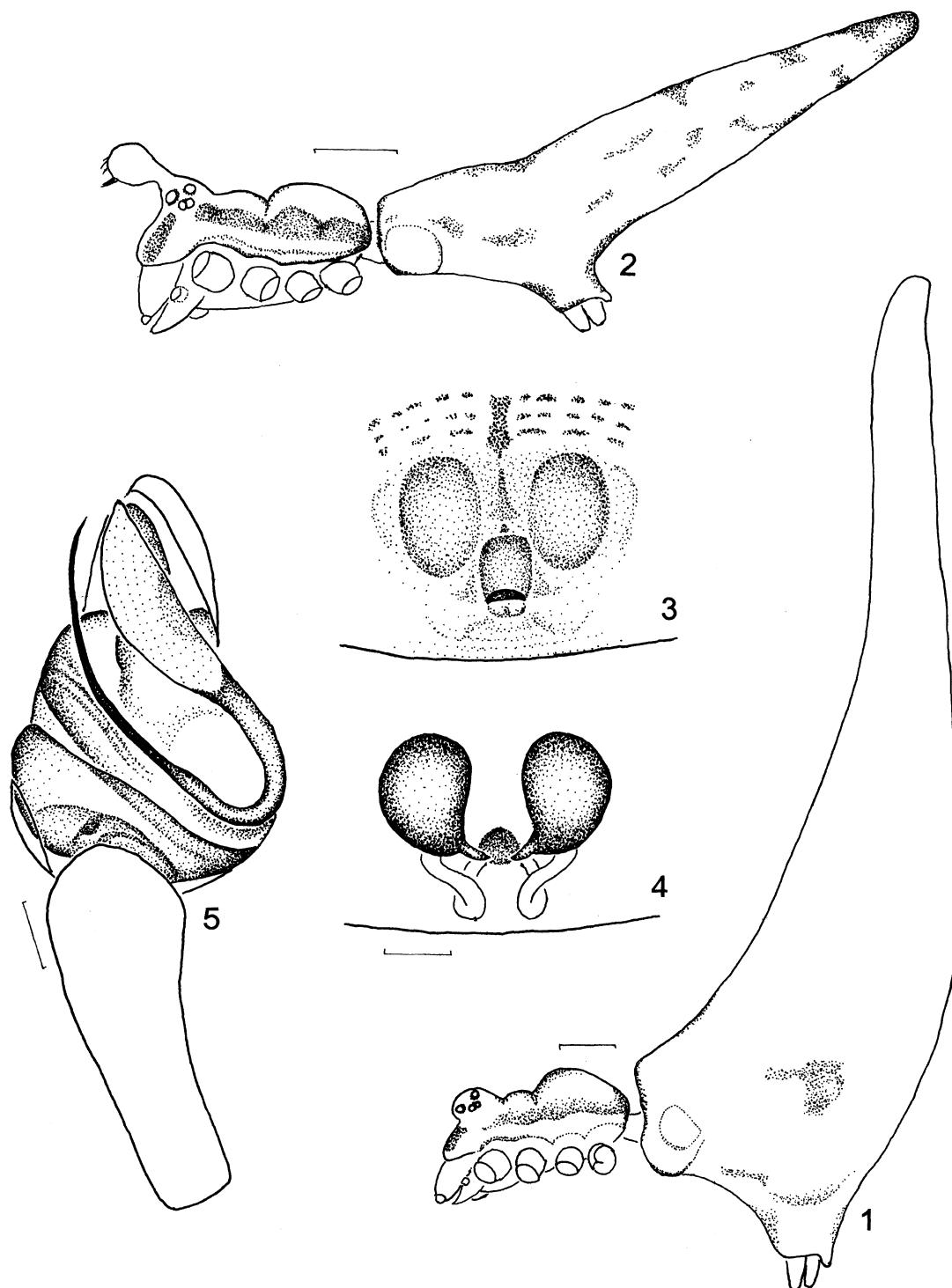
(Figs. 1–5)

*Ariamnes saganus* Dönitz & Strand, in Bösenberg & Strand 1906, p. 378, pl. 5, fig. 46 (holotype: ♀ from Saga, Japan; not examined)—Saito 1941, p. 165, fig. 188.

*Rhomphaea sagana*: Yaginuma 1960, p. 32, pl. 6, fig. 34, text-fig. 31.

*Argyrodes saganus*: Yaginuma 1986, p. 51, pl. 12, fig. 6, text-fig. 28–6; Chikuni 1989, p. 35, fig. 27; Logunov & Marusik 1990, p. 133, figs. 9–14; Barrion & Litsinger 1995, p. 458, fig. 277; Zhu, 1998, p. 212, fig. 138; Song et al. 1999, p. 100, fig. 47G–H, O.

**Specimens examined.** HOKKAIDO: 1♀1♂, Oshidomari, Rishiri Is., 4-VIII-1981, H. Yoshida leg. YAMAGATA: 1♀1♂, Mukaimachi, Mogami-machi, 29-VII-1981, H. Yoshida leg.; 1♀, Han-ya, Mogami-machi, 29-VII-1981, H. Yoshida leg.; 2♀1♂, Ohori, Mogami-machi, 6-VII-1982, H. Yoshida leg. (NSMT-Ar 5171); 1♂, Tsuruko, Obanazawa-shi, 3-



**Figs. 1–5.** *Rhomphaea sagana* (Dönitz & Strand 1906), ♀♂ from Mogami-machi, Yamagata Pref.—1, female, lateral view; 2, male, lateral view; 3, epigynum, ventral view; 4, female internal genitalia, dorsal view; 5, male left palpus, ventral view. Scales: 0.5 mm (1–2) and 0.1 mm (3–5).

VIII-1986, H. Yoshida leg.; 1♀, Wakahata-numa, Obanazawa-shi, 10-VIII-1986, H. Yoshida leg.; 2♂, 24-V-1986, 1♀, 16-VI-1986, Takinosawa, Higashine-shi, H. Yoshida leg.; 2♀, Mt. Atsumi-dake, Atsumi-machi, 2-VII-

1989, H. Yoshida leg. NAGANO: 1♀1♂, Misuzuko Lake, Matsumoto-shi, 29-VI-1984, N. Tsurusaki leg. NARA: 1♀♂, Yoshino, 22-VIII-1971, H. Tanaka leg.; 1♀juv., Mt. Obako-dake, 10-XII-1977, H. Yoshida leg.; 1♀, Taki,

Totsugawa-mura, 26-V-1979, H. Yoshida leg. OSAKA: 3♀, Mt. Iwawaki, 1-VI-1977, H. Yoshida leg. WAKAYAMA: 1♀3♂, Mt. Mitsuishi, Hashimoto-shi, 22-VII-1976, H. Yoshida leg.

**Distribution.** Japan: Hokkaido, Honshu, Shikoku, Kyushu and the Nansei Islands. China, Russia and the Philippines.

**Notes.** Body length, 6.0–11.0 mm in female, 6.0–8.0 mm in male. Body as shown in Figs. 1–2: male carapace with a mushroom-like projection. Genital organs as shown in Figs. 3–5. This species is most popular among the congeners in Japan, and occurs from northern Hokkaido to the Nansei Islands.

*Rhomphaea hyrcana* (Logunov & Marusik 1990)  
new combination

[Japanese name: Tatesuji-yarigumo]  
(Figs. 6–9, 14, 17)

*Argyrodes hyrcanus* Logunov & Marusik 1990, p. 133, figs. 1–7 (holotype: ♂ from Caucasus, Russia, Logunov leg.; not examined)—Zhu & Song 1991, p. 136, fig. 8; Zhu 1998, p. 217, fig. 142; Song et al. 1999, p. 100, fig. 46L–M.

**Specimens examined.** KYOTO: 1♀1♂, Inozaki, Fuchiyama-shi, 29-VII-1998, K. Nojima leg. OKAYAMA: 3♀1♂, Hata, Soja-shi, 5-IX-1995, K. Nojima leg. OKINAWA: 1♀, Mt. Omoto-dake, 12-VII-1976, H. Yoshida leg.; 2♀2♂ (NSMT-Ar 5172), 1♀2♂ (CAT), Uehara, Iriomote Is., 28-III-1988, A. Tanikawa leg.; 1♀, Hikawa, Yonaguni Is., 31-VIII-1995, H. Tanaka leg.

**Distribution.** Japan: Honshu (Kyoto and Okayama Prefectures) and the Nansei Islands (Ishigaki, Iriomote and Yonaguni Islands). China (Hainan Province) and Russia (Caucasus).

**Notes.** Body length, 7.5–11.5 mm in female, 5.3–6.5 mm in male. This species resembles *R. labiata* (Zhu & Song 1991), but is distinguished from the latter by having blackish brown flecks in on dorsal surface, especially distinct in the palpus and legs, black lines touching behind the eye region that is not so projecting (Figs. 6, 14, 17), and genital organs (Figs. 7–9). This species is recorded for the first time from Japan.

*Rhomphaea labiata* (Zhu & Song 1991)  
new combination

[Japanese name: Higenaga-yarigumo]  
(Figs. 10–13, 15, 18)

*Argyrodes labiatus* Zhu & Song 1991, p. 137, fig. 9 (holotype: ♂ from Bobai County, Guangxi Province,

China, IX-1977; not examined)—Zhu 1998, p. 213, fig. 139; Song et al. 1999, p. 100, fig. 46E–F, N; Ono & Shinkai 2001, p. 275, figs. 1–3.

**Specimens examined.** TOKYO: 1♂, Garden of the Institute for Nature Study, Shirogane, Minato-ku, 10-VII-1999, Y. Kudo leg. (NSMT-Ar 4946). HIROSHIMA: 1♀ juv.1♂, Haji Dam, Yachiyo-cho, 28-VII-2000, Y. Ihara leg. KOCHI: 1♂, Teyui, Yasu-cho, 5-VIII-1995, M. Sadamoto leg.; 1♀, Hotsumisaki-ji, Muroto Cape 140m alt, 2-XI-1993, N. Tsurusaki leg. OKINAWA: 1♀, Yonehara, Ishigaki Is., 1-VIII-1985, H. Yoshida leg.; 2♀1♂, 30-III-1986, 1♂, 29-III-1989, 1♀, 30-VII-1991, Funaura, Iriomote Is., A. Tanikawa leg. (NSMT-Ar 5173–5175); 1♂, 18-VIII-1988, 1♀, 28-III-1989, Komi, Iriomote Is., A. Tanikawa leg. (CAT); 1♀, Sonai, Iriomote Is., 30-III-1988, A. Tanikawa leg. (CAT); 1♂, Ohara, Iriomote Is., 30-III-1989, A. Tanikawa leg.; 1♀, Otomi, Iriomote Is., 30-XII-1986, A. Tanikawa leg.

**Distribution.** Japan: Honshu (Tokyo and Hiroshima Prefectures), Shikoku (Kochi Pref.) and the Nansei Islands (Ishigaki and Iriomote Islands). China.

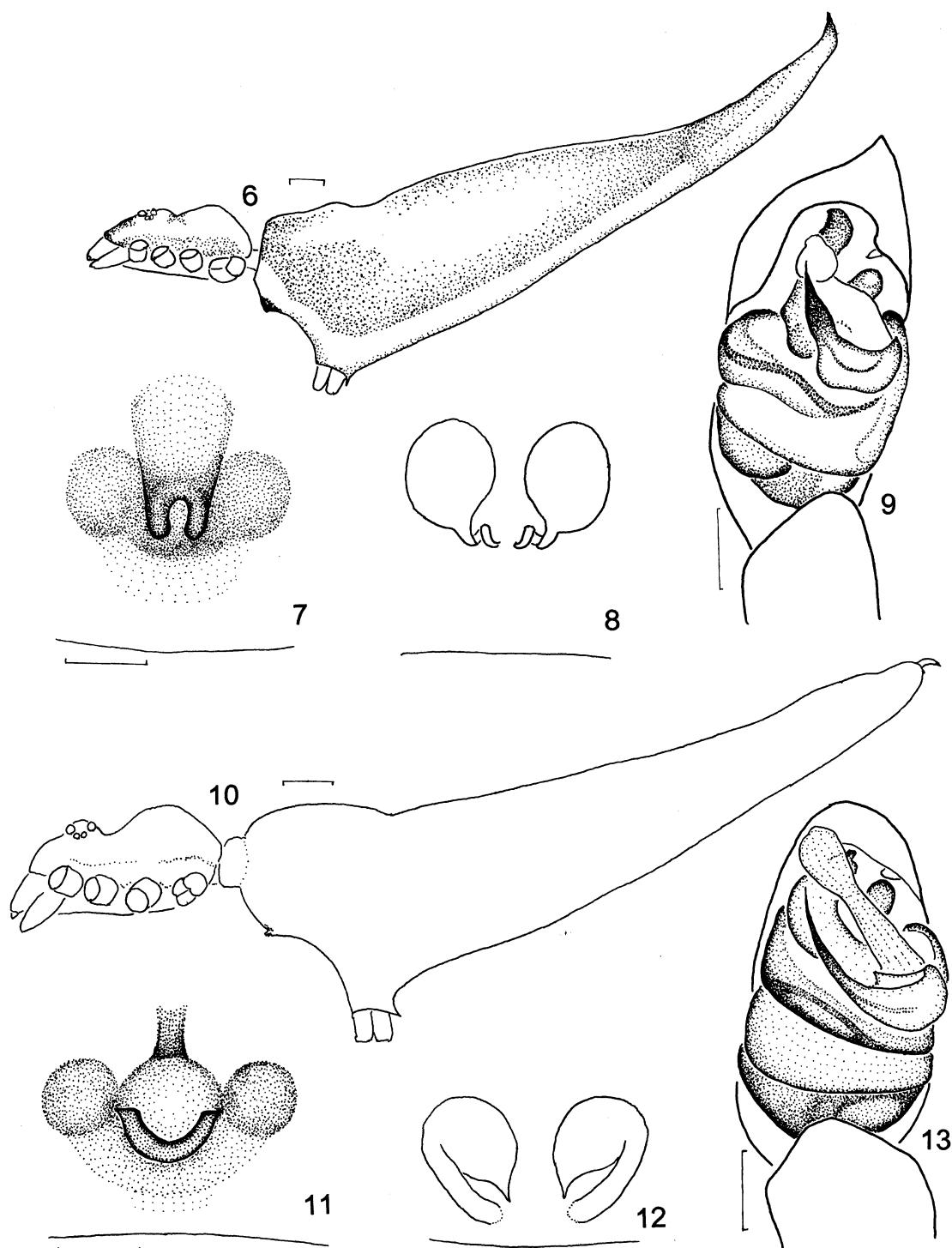
**Notes.** Body length, 5.2–10.2 mm in female, 4.4–5.3 mm in male. This species resembles *R. hyrcana* (Logunov & Marusik 1990), but is distinguishable from the latter by the body dorsally without distinct blackish brown flecks, eye region projecting (Figs. 10, 15, 18), and genital organs (Figs. 11–13).

*Rhomphaea tanikawai* new species  
[Japanese name: Tanikawa-yarigumo]  
(Figs. 16, 19–24)

**Diagnosis.** This species resembles *R. hyrcana* (Logunov & Marusik 1990) and *R. labiata* (Zhu & Song 1991), but is distinguished from the latter by the abdomen two to three times as long behind as anterior to spinnerets. Genital organs are also distinct from other congeners.

**Description.** Carapace with clypeus slanting and projecting anteriorly; with three mounds; first of which with eye region, median, posterior one large (Figs. 16, 19–21). Anterior median and lateral eyes close to each other. Abdomen two to three times as long behind as anterior to spinnerets in female, twice in male (Figs. 16, 19–21).

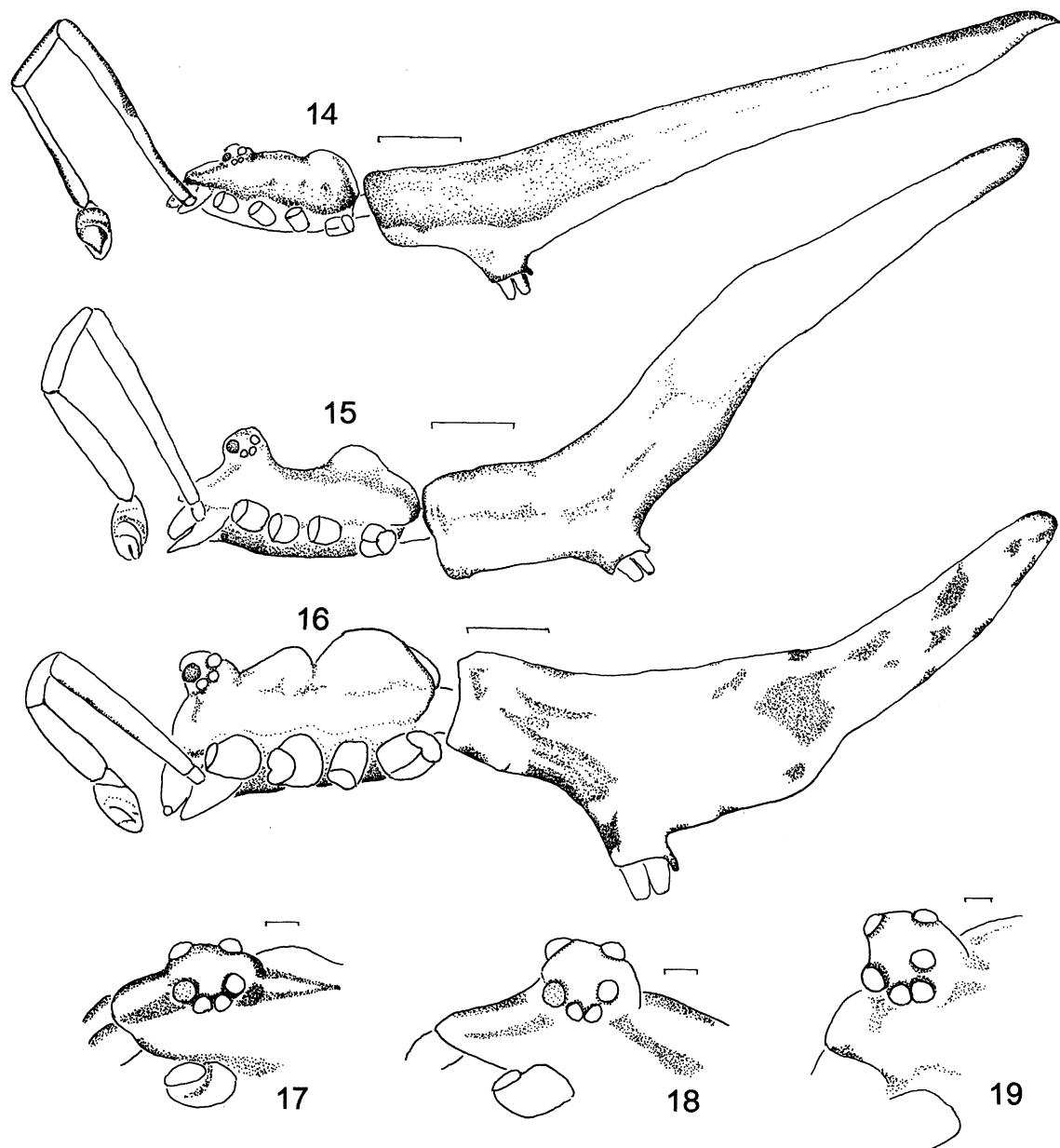
Female genitalia as shown in Figs. 22–23: epigynum posteriorly with a hooded scapus; openings inside it. Male palpus as shown in Fig. 24: embolus with a large base and a thin and straight tip; conductor membranous, with a thick base and a thin and rounded tip; tegulum large; patella 1.2 times the tibia.



Figs. 6–13. *Rhomphaea hyrcana* (Logunov & Marusik 1990), ♀♂ from Soja-shi, Okayama Pref. (6–9) and *R. labiata* (Zhu & Song 1991), ♀♂ from Iriomote Is., Okinawa Pref. (10–13)—6, 10, female, lateral view; 7, 11, epigynum, ventral view; 8, 12, female internal genitalia, dorsal view; 9, 13, male left palpus, ventral view. Scales: 0.5 mm (6, 10) and 0.1 mm (7–9, 11–13).

Coloration. Carapace, chelicerae, maxillae, labium and sternum yellowish brown. Carapace with faint black flecks. Sternum with reticulately dusky flecks. Legs

yellowish brown with many black spots; patella, and distal parts of femur and tibia brown. Abdomen covered with silver pigments; venter with longitudinal black



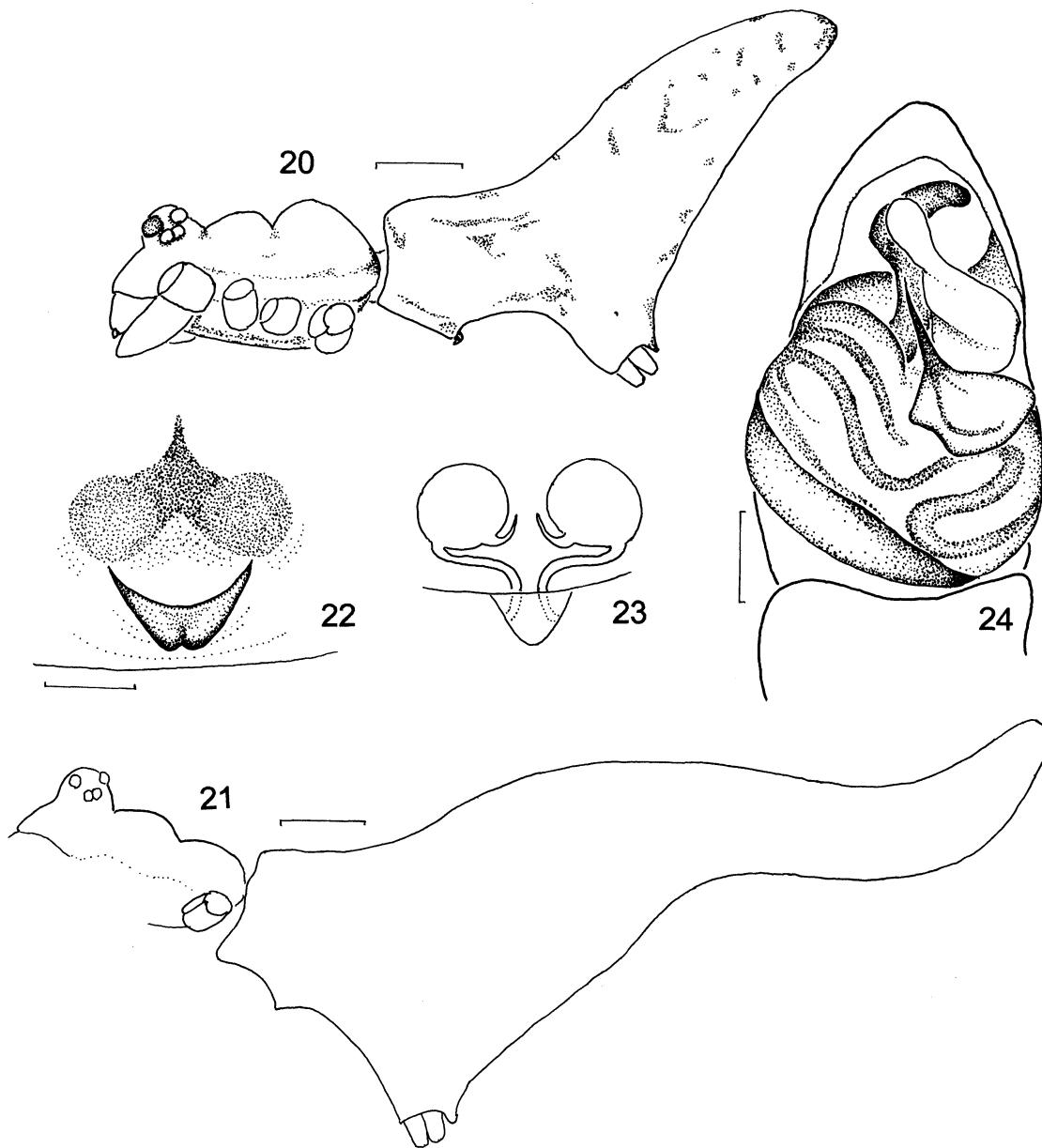
**Figs. 14–19.** *Rhomphaea hyrcana* (Logunov & Marusik 1990), ♂ from Soja-shi, Okayama Pref. (14, 17), *R. labiata* (Zhu & Song 1991), ♂ from Iriomote Is., Okinawa Pref. (15, 18) and *R. tanikawai* new species, ♂ holotype (16, 19)—14–16, lateral view; 17–19, eye region, dorso-lateral view. Scales: 0.5 mm (14–16) and 0.1 mm (17–19).

lines.

Measurements (in mm, ♀ allotype/♂ holotype). Body length 4.53/5.42. Carapace length 1.53/1.63; width 0.84/1.00. Abdomen length 3.00/3.79; width 0.95/1.05; height 1.74/2.47. First leg: femur 5.63/6.16; patella and tibia 5.42/6.00; metatarsus 3.21/3.47; tarsus 1.16/1.21. Second patella and tibia 2.89/3.00; third patella and tibia 1.53/1.58; fourth patella and tibia 2.74/3.26. Diameters: anterior median eye 0.13/0.16; anterior

lateral eye 0.09/0.11; posterior median eye 0.09/0.11; posterior lateral eye 0.09/0.11. Distances: between anterior median eyes 0.13/0.16; between anterior median and lateral eyes 0.01/0.01; between posterior median eyes 0.13/0.13; between posterior median and lateral eyes 0.04/0.05. Median ocular area, anterior width 0.34/0.39; posterior width 0.29/0.32; length 0.29/0.29.

*Variation.* Body length, 4.2–6.3 mm in female, 5.4–5.5 mm in male.



**Figs. 20-24.** *Rhomphaea tanikawai* new species, ♂ holotype (24), ♀ allotype (20, 22-23) and ♀ paratype (21)—20-21, female, lateral view; 22, epigynum, ventral view; 23, female internal genitalia, dorsal view; 24, male left palpus, ventral view. Scales: 0.5 mm (20-21) and 0.1 mm (22-24).

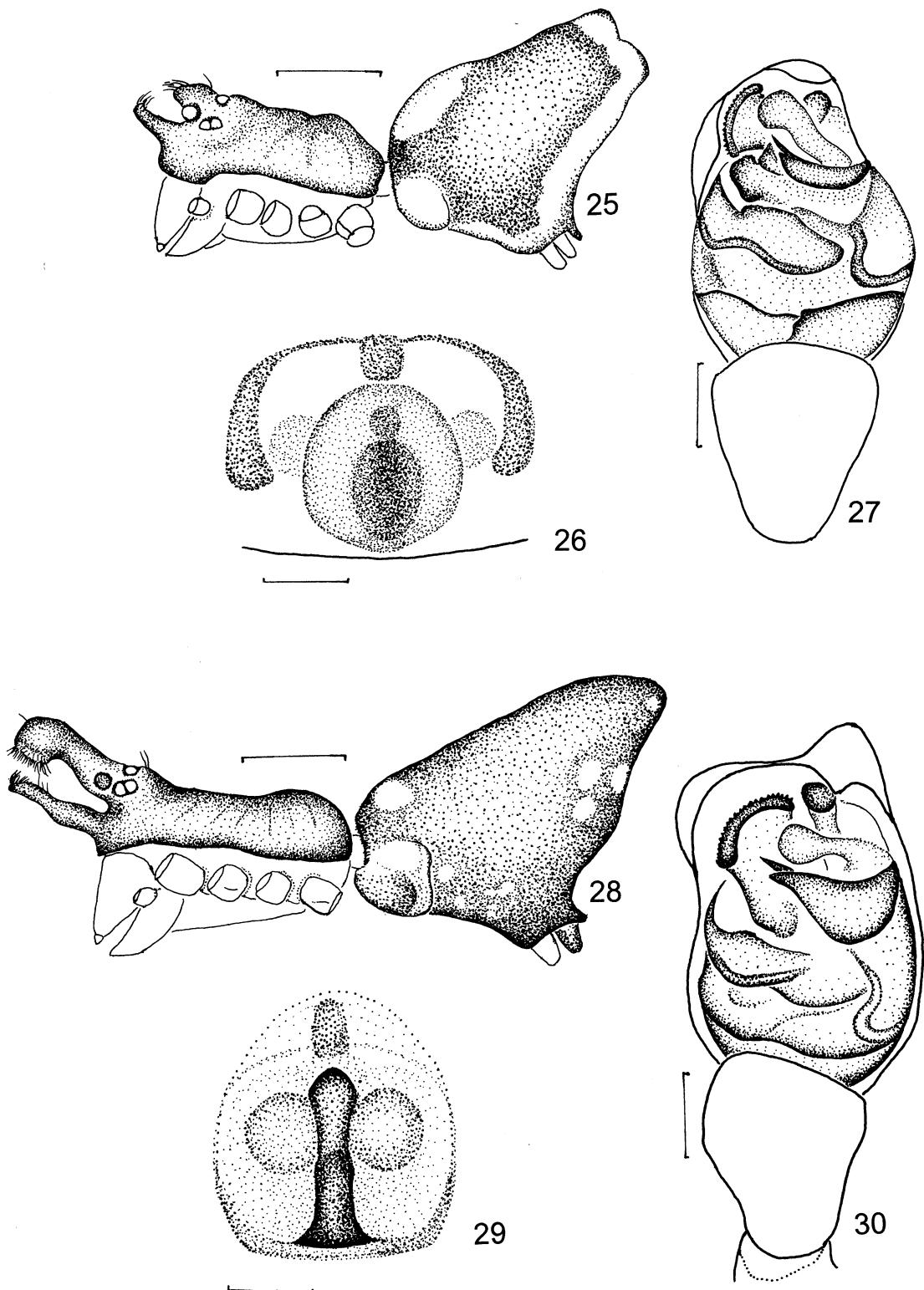
**Type series.** Holotype: ♂, and allotype: ♀, Komi, 27-III-1987, (NSMT-Ar 5176-5177). Paratypes: 1♀1♂, 2-I-1986, 1♀, 31-XII-1987, Funaura (NSMT-Ar 5178-5179); 1♀, Otomi, 28-III-1986, (NSMT-Ar 5180). All collected by A. Tanikawa from Iriomote Is. Okinawa Pref., Japan.

**Distribution.** Japan: Iriomote Is. of the Yaeyama Islands (southern most islands of the Nansei Islands).

**Etymology.** The specific name is dedicated to Mr. Akio Tanikawa, Kanagawa, who collected the type specimen and is a specialist of argyrodine spiders.

#### A list of the Japanese species of Argyrodinae

1. *Spheropistha melanosoma* Yaginuma 1957
2. *Spheropistha miyashitai* (Tanikawa 1998)
3. *Argyrodes xiphias* Thorell 1887
4. *Argyrodes bonadea* (Karsch 1881)
5. *Argyrodes miniaceus* (Doleschall 1857)
6. *Argyrodes flavescens* O. Pickard-Cambridge 1880
7. *Argyrodes kumadai* Chida & Tanikawa 1999
8. *Argyrodes cylindratus* Thorell 1898



**Figs. 25-30.** *Argyrodes fur* Bösenberg & Strand 1906, ♀♂ from Totsukawa-mura, Nara Pref. (25-27), and *A. nipponicus* Kumada, 1990, ♀ allotype and ♂ holotype (28-30)—25, 28, male, lateral view; 26, 29, epigynum, ventral view; 27, 30, male left palpus, ventral view. Scales: 0.5 mm (25, 28) and 0.1 mm (26-27, 29-30).

9. *Argyrodes fur* Bösenberg & Strand 1906  
= *Argyrodes gansuensis* Zhu 1998 **New Synonymy**
10. *Argyrodes nipponicus* Kumada 1990
11. *Rhomphaea sagana* (Dönitz & Strand 1906)
12. *Rhomphaea hyrcana* (Logunov & Marusik 1990)
13. *Rhomphaea labiata* (Zhu & Song 1991)
14. *Rhomphaea tanikawai* new species
15. *Ariamnes cylindrogaster* Simon 1889

### Acknowledgments

I wish to express my sincere thanks to Mr. Akio Tanikawa, Kanagawa, for offering many specimens used in this paper and to Dr. Hirotugu Ono, National Science Museum, Tokyo, for his kind advice and loaning specimens. My thanks are also due to Mr. Yoh Ihara, Hiroshima, Mr. Koichi Nojima, Osaka, Mr. Miyoshi Sadamoto, Saitama, Prof. Hozumi Tanaka, Sonoda Wemen's Junior College, Hyogo, and Prof. Nobuo Tsurusaki, Tottori University, Tottori, for offering specimens.

### References

Archer, A. F. 1950. A study of theridiid and mimetid spiders with descriptions of new genera and species. *Alab. Mus. Nat. Hist., Mus. Pap.*, 30: 1–40.

Barrión, A. T. & Litsinger, J. A. 1995. Riceland Spiders of South and Southeast Asia. CAB International, Wallingford. xix + 700 pp., 16 pls.

Bösenberg, W. & Strand, E. 1906. Japanische Spinnen. *Abh. Senck. Naturf. Ges.*, 30: 93–422, pls. 3–10.

Chikuni, Y. 1989. Pictorial Encyclopedia of Spiders in Japan. Kaiseisha, Tokyo. 310 pp. (In Japanese)

Exline, H. & Levi, H. W. 1962. American spiders of the genus *Argyrodes* (Araneae, Theridiidae). *Bull. Mus. Comp. Zool.*, 127: 75–204, 15 pls.

Knoflach, B. 1999. The comb-footed spider genera *Neottiura* and *Coleosoma* in Europe (Araneae, Theridiidae). *Bull. Soc. Ent. Suisse*, 72: 341–371.

Koch, L. 1872. Die Arachniden Australiens, nach der Natur beschrieben und abgebildet. Nürnberg: 105–368.

Levi, H. W. & Levi, L. R. 1962. The genera of the spider family Theridiidae. *Bull. Mus. Comp. Zool.*, 127: 3–71, 14 pls.

Logunov, D. V. & Marusik, Y. M. 1990. The spider genus *Argyrodes* (Aranei, Theridiidae) in the USSR. *Zool. Zh.*, 69: 133–136. (In Russian with English summary)

Ono, H. & Shinkai E. 2001. Spiders from the Garden of the Institute for Nature Study, Shirogane, Tokyo, Japan (Arachnida, Araneae). *Miscel. Rept. Inst. Nat. Stud.*, 33: 265–293. (In Japanese with English summary)

Petrunkewitch, A. 1928. *Systema Araneorum*. *Trans. Connect. Acad. Arts Sci.*, 26: 1–270.

Platnick, N. I. 2001. The World Spider Catalog, Version 2.0. <http://research.amnh.org/entomology/spiders/catalog81-87/>

Saito, S. 1934. Spiders from Hokkaido. *J. Fac. Agri., Hokkaido Imp. Univ.*, Sapporo, 33: 267–362, pls. 12–15.

Saito, S. 1941. Fauna Nipponica Vol. IX, Fas. II, No. II, Suborder Arachnomorphae, Tertasticta Trionycha I, Class Arachnoidea, Order Araneina. Sanseido, Tokyo. 220 pp. (In Japanese)

Simon, E. 1894. *Histoire Naturelle des Araignées*, 2nd ed. 1 (3): 489–760.

Song, D., Zhu, M. & Chen, J. 1999. The Spiders of China. Hebei Science and Technology Publishing House, Hebei. 640 pp., 4 pls.

Tanikawa, A. 1998. The new synonymy of the spider genus *Argyrodes* (Araneae: Theridiidae) and a description of a new species from Japan. *Acta Arachnol.*, 47: 21–26.

Wunderlich, J. 1987. Die Spinnen der Kanarischen Inseln und Madeiras. Triops Verlag, Langen. 435 pp.

Yaginuma, T. 1960. Spiders of Japan in Colour. Hoikusha, Osaka. vi + 186 + 8 pp., 56 pls. (In Japanese)

Yaginuma, T. 1986. Spiders of Japan in Color (new ed.). Hoikusha, Osaka. xxiv + 305 pp., 64 pls. (In Japanese)

Yoshida, H. 2001. A revision of the genera and species of the subfamily Theridiinae (Araneae: Theridiidae) from Japan. *Acta Arachnol.*, 50: 157–181.

Yoshida, H., Tso, I-M. & Severinghaus, L. L. 2000. The spider family Theridiidae (Arachnida: Araneae) from Orchid Island, Taiwan: Descriptions of six new and one newly recorded species. *Zool. Studies*, 39: 123–132.

Zhu, M. 1998. Fauna Sinica, Arachnida, Araneae, Theridiidae. Science Press, Beijing. ix + 436 pp., 1 pl. (In Chinese with English summary)

Zhu, M. & Song, D. 1991. Notes on the genus *Argyrodes* from China (Araneae: Theridiidae). *J. Hebei Educ. Col., Nat. Sci.*, 1991: 130–146. (In Chinese with English summary)

Received August 9, 2001/Accepted October 5, 2001

より Spintharinae Simon 1894 を本亜科の新参異名とした。比較のためヒメグモ科の亜科の検索表およびヒメグモ亜科の属の検索表を掲げた。ここで取り上げた属のうち 2 属はこれまで日本では記録がなく、3 属は新属である。

2 属 3 種、アカアシヒメグモ属（新称）*Nesticodes* Archer 1950, アカアシヒメグモ *N. rufipes* (Lucas 1846), チクニヒメグモ属（新称）*Neottiura* Menge 1868, フタスジヒメグモ *N. bimaculata* (Linnaeus 1767) およびチクニヒメグモ（改称）*N. margarita* (Yoshida 1985) はすでに外国で日本産の種に使われている。

2 属、ハイイロヒメグモ属（新称）*Paidiscura* Archer 1950 およびタカネヒメグモ属（新称）*Rugathodes* Archer 1950, は新たに記録される属であり、2 種、ハイイロヒメグモ *P. subpallens* (Bösenberg & Strand 1906) およびタカネヒメグモ *R. nigrolimbata* (Yaginuma 1972) を新たにこれらの属に移した。

3 新属、タカユヒメグモ属（新称）*Takayus*, オキナワヒメグモ属（新称）*Nipponidion* およびホシヒメグモ属（新称）*Keijia* を記載し、9 種、タカユヒメグモ *Ta. takayensis* (S. Saito 1939), バラギヒメグモ *Ta. chikunii* (Yaginuma 1960), ヒロハヒメグモ *Ta. latifolius* (Yaginuma 1960), ユノハマヒメグモ *Ta. yunohamensis* (Bösenberg & Strand 1906), コケヒメグモ *Ta. subadultus* (Bösenberg & Strand 1906), シモフリヒメグモ *Ta. lyricus* (Walckenaer 1842), ヤエヤマヒメグモ *N. yaeyamense* (Yoshida 1993), ムナボシヒメグモ *K. sterninotata* (Bösenberg & Strand 1906) およびサトヒメグモ（改称）*K. mneon* (Bösenberg & Strand 1906) をこれらの属に移した。

さらに、3 新種、オキナワヒメグモ（新称）*Nipponidion okinawense*, ミナミホシヒメグモ（新称）*Keijia maculata* およびイリオモテヒメグモドキ（新称）*Theridula iriomotensis* を記載した。

また、ロシアのサハリンから記載された *Theridula albipes* S. Saito 1935 をコガネヒメグモ属 *Chrysso* に新たに移し、ギボシヒメグモ *C. rapula* (Yaginuma 1960) を *C. albipes* の新参異名とした。さらに、コガネヒメグモ *Chrysso venusta* (Yaginuma 1957) をミャンマーで記載された *C. scintillans* (Thorell 1895) の、サトヒメグモ *Theridion adamsoni* Berland 1934 を *Keijia mneon* (Bösenberg & Strand 1906) の新参異名とした。和名はそれぞれ一般に使われているギボシヒメグモ、コガネヒメグモおよびサトヒメグモを使用する。

中国産の 11 種、*Takayus kunmingicus* (Zhu 1998), *Ta.*

*naevius* (Zhu 1998), *Ta. hushanensis* (Zhu 1998), *Ta. xui* (Zhu 1998), *Ta. linimaculatus* (Zhu 1998), *Ta. wangii* (Zhu 1998), *Ta. sublatifolius* (Zhu 1998), *Ta. lunulatus* (Guan & Zhu 1993), *Ta. huanrenensis* (Zhu & Gao 1993), *Ta. quadrimaculatus* (Song & Kim 1991), *Keijia qionghaiensis* (Zhu 1998), ヨーロッパおよび北アメリカに分布する 1 種 *K. tincta* (Walkenaer 1802), および北アメリカ産の 3 種 *K. antoni* (Keyserling 1884), *K. alabamensis* (Gertsch & Archer 1942) および *K. punctosparsa* (Emerton 1882) を *Theridion* より転属した。

日本産として記載された 3 つの種名、*Theridion argyrodiforme* Bösenberg & Strand 1906, *Th. indicis* Bösenberg & Strand 1906 および *Th. sagaphilum* Strand 1916 を疑問名とした。

#### 日本産のヤリグモ属（クモ目：ヒメグモ科）およびイソウロウグモ亜科 (pp. 183-192)

吉田 哉 (〒990-2484 山形市篠田 2 丁目 7 番 16 号)

マルイソウロウグモ属 *Spheropistha*, ヤリグモ属 *Rhomphaea* およびオナガグモ属 *Ariamnes* を属として復活させ、イソウロウグモ属 *Argyrodes* とともにイソウロウグモ亜科として扱い、検索表および比較のための表を掲げた。

ヤリグモ属に属する 4 種を日本より記録した。そのうち 2 種、タテスジヤリグモ（新称）*Rhomphaea hyrcana* (Logunov & Marusik 1990) およびヒゲナガヤリグモ *R. labiata* (Zhu & Song 1991) はイソウロウグモ属より新たに転属したものである。前者は日本新記録となる。また、タニカワヤリグモ（新称）*R. tanikawai* を新種として記載した。さらに、日本産のイソウロウグモ亜科に属する 15 種の目録を付した。

日本産のミヤシタイソウロウグモ *Argyrodes miyashitai* Tanikawa 1998 および中国産の *A. orbitus* Zhu 1998 および *A. nigroris* Yoshida et al. 2000, をマルイソウロウグモ属 *Spheropistha* に転属した。中国産の *Argyrodes gansuensis* Zhu 1998 を *Argyrodes fur* Bösenberg & Strand 1906 の新参異名とした。また、北海道で記載されたギンイソウロウグモ *Argyrodes silvicola* S. Saito 1934 を疑問名とした。

#### ワシグモ科の 1 新属ムモントンビグモ属と既知の 1 属 ブチワシグモ属 (pp. 193-200)

加村隆英 (〒567-8502 茨木市西安威 2-1-15 追手門学院大学生物学研究室)